

REMARKS

In the Office Action, the Examiner indicated that claims 1 through 27 are pending in the application and the Examiner rejected all of the claims.

The §112 Rejection

On page 2 of the Office Action, the Examiner has rejected claims 1-27 under 35 U.S.C. §112, second paragraph, as being indefinite. Applicant has amended claim 1 to recite steps of the method, thereby overcoming this rejection. Accordingly, applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 1-27 under 35 U.S.C. §112.

The §101 Rejection

On page 3 of the Office Action, the Examiner rejected claims 1-26 under 35 U.S.C. §101 as being directed to non-statutory subject matter. Applicant has amended claim 1 as noted above, and in addition, has set forth structure to produce the useful and tangible result performed by the structure executing the method. Accordingly, applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 1-26 under 35 U.S.C. §101.

Rejection under 35 U.S.C. §102

On page 3 of the Office Action, the Examiner rejected claims 1-27 under 35 U.S.C. §102(b) as being anticipated by Hoogerbrugge, "Code Generation for Transport Triggered Architectures" (hereinafter "Hoogerbrugge").

The Present Invention

The present invention provides a process for generating executable code for a configurable microprocessor architecture. The architecture contains registers distributed between execution units under direct software control. An internal representation allows explicit allocation of both register and connectivity resources in the architecture. More specifically, the present invention provides a method of generating executable code for a configurable microprocessor architecture which has an instruction set and a plurality of physical data path connections between execution units, comprising (a) situating individual registers in the data paths between execution units; (b) updating said registers by explicit management from the instruction set of the processor; (c) reading and writing of said registers, whereby said reading and writing is represented in a data flow graph representation of a program being targeted to the processor; (d) representing dependencies between reads and writes to registers as edges in the graph; (e) detecting, by the presence of cycles within the graph, graphs that invalidate the register access dependency rules; (f) performing cyclic detection after each individual register allocation performed on the graph to detect an allocation which is illegal; and (g) using the cycle detection mechanism to force alternative allocation decisions to be made to avoid cyclic graphs and direct the allocation to an acyclic and thus legal allocation.

The Cited Prior Art Does Not Anticipate the Claimed Invention

The MPEP and case law provide the following definition of anticipation for the purposes of 35 U.S.C. §102:

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." (*Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987) M.P.E.P. §2131.

The Examiner Has Not Established a *Prima Facie* Case of Anticipation

Applicant has moved the limitation of claims 13 and 14 into independent claim 1 (added elements (d) and (e)). In addition, applicant has added elements (f) and (g) which add the further steps of performing cyclic detection after each individual register allocation performed on the graph to detect an illegal allocation, and using the cyclic detection to force alternative allocation decisions to be made to avoid cyclic graphs and direct the allocation to an acyclic and thus legal allocation. Support for the added claim elements is found, for example, on page 32, second and third full paragraphs. None of these elements are taught (or suggested) by Hoogerbrugge. Without such teachings in Hoogerbrugge, Hoogerbrugge does not anticipate the claimed invention.

Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of claims 1-26 under 35 USC §102.

Conclusion

The present invention is not taught or suggested by the prior art. Accordingly, the Examiner is respectfully requested to reconsider and withdraw the rejection of the claims. An early Notice of Allowance is earnestly solicited.

The Commissioner is hereby authorized to charge any fees associated with this communication to applicant's Deposit Account No. 50-4364.

Respectfully submitted

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Date

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